

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER: R00S16
SAMPLE DELIVERY GROUP: 00112D
PROGRAM: SUPERFUND
DOCUMENT CONTROL #: ESTW-9B-3252
DATE: 05/15/00
ANALYSIS: PERCHLORATE AND TOTAL DISSOLVED SOLIDS
SAMPLE NUMBERS:

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
Colorado River above Imp Dam	AB26823
Colorado River above Imp Dam	AB26824
Colorado River above Imp Dam	AB26825
Colorado River @ NIB	AB26826
Colorado River @ NIB	AB26827
Colorado River @ NIB	AB26828

GENERAL COMMENTS

Six water samples were received from the Colorado River Perchlorate Study Superfund project on 04/21/00.

The requested analyses were perchlorate by Region 9 Laboratory SOP #531 and total dissolved solids by Region 9 Laboratory SOP #461 (EPA Method 160.1). All TDS samples were analyzed outside of the required 7-day holding time. Perchlorate samples AB26823, AB26824 and AB26826 were analyzed outside of the required 28-day holding time. Hold time exceedances are listed in the following table:

Sample ID	Date Collected	Date perchlorate analyzed	Days outside perchlorate 28-day holding time	Date TDS analyzed	Days outside TDS 7-day holding time
AB26823	01/26/00	04/24/00	61	05/01/00	89
AB26824	03/29/00	05/03/00	7	05/01/00	26
AB26825	04/19/00	04/24/00	N/A	05/01/00	5
AB26826	01/27/00	04/24/00	60	05/01/00	88
AB26827	03/28/00	04/24/00	N/A	05/01/00	27
AB26828	04/20/00	04/24/00	N/A	05/01/00	4

SAMPLE RECEIPT AND PRESERVATION

All samples were received on ice; no temperature was recorded at the time of receipt.

QA/QC SUMMARY

The following comments appear in the Summary of Analytical Results:

- A. All sample results greater than or equal to ½ the quantitation limit (QL) but less than the QL are estimated (J).

- B. The 5 ug/L perchlorate LFM (147%) and LFM duplicate (140%) recoveries were outside the 75-125% QC limits; all perchlorate results above the QL are flagged as estimated (J).

The crucible for the TDS high LFB sample was broken before the second weighing. The initial weighing of the high LFB was within the 85-115% QC limits. The low LFB recovery was within the 85-115% QC limits. The perchlorate LFBs were within the 90-110% QC limits.

No duplicate analysis was performed for TDS due to lack of sample.

The 25 ug/L perchlorate LFM and LFM duplicate recoveries were within the 75-125% QC limits.

The perchlorate RPDs for the LFM and LFM duplicate were less than the 20% QC limit.

Questions concerning the data can be answered by Patrick Hirata at (510) 412-2354.

GLOSSARY

Laboratory Reagent Blanks (LRB)

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

EPA REGION 9 LABORATORY-RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S16
 Site: Colorado River Perchlorate Study
 SDG: 00112D
 Date: 05/15/00

Analysis: Perchlorate and TDS
 Matrix: Water

Sample No.	429490	429490	429490	09522000	09522000	09522000
Sample I.D.	Abv. Imp. Dam	Abv. Imp. Dam	Abv. Imp. Dam	@NIB	@NIB	@NIB
Lab Sample I.D.	AB26823	AB26824	AB26825	AB26826	AB26827	AB26828
Date of Collection	01/26/00	03/29/00	04/19/00	01/27/00	03/28/00	04/20/00
Analyte (units)	Result	Q	Com	Result	Q	Com
Perchlorate (ug/L)	5 U		B	5	J	B
Total Dissolved Solids (mg/L)	690			630		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Sample No.	Reagent	Reagent	Quantitation
Sample I.D.	Blank	Blank	Limit
Lab Sample I.D.	N/A	N/A	N/A
Date of Collection	N/A	N/A	N/A
Analyte (units)	Result	Q	Com
Perchlorate (ug/L)	5 U		
Total Dissolved Solids (mg/L)	20 U		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.